

OBRA 1990 Retirement System of the County of Milwaukee

Actuarial Valuation Report

Plan Year

January 1, 2015 - December 31, 2015

July 2015



July 2015

The Retirement Board Employees' Retirement System of the County of Milwaukee 901 N. 9th St. Milwaukee, WI 53233



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Certification of Actuarial Valuation

Ladies and Gentlemen:

This report presents the results of the annual actuarial valuation of the OBRA 1990 Retirement System of the County of Milwaukee as of January 1, 2015. The valuation takes into account all of the promised benefits to which members are entitled as of January 1, 2015; and as required by the Retirement Code is the basis for the Budget Contribution for fiscal year 2015.

Future actuarial measurements may differ significantly from current measurements due to plan experience differing from that anticipated by the economic and demographic assumptions, changes expected as part of the natural operation of the methodology used for these measurements, and changes in plan provisions, applicable law or regulations. Because of limited scope, Buck performed no analysis of the potential range of such future differences.

In our opinion, the actuarial assumptions used are reasonable, taking into account the experience of the Plan and reasonable long-term expectations, and represent our best estimate of the anticipated long-term experience under the Plan. The valuation was based on the actuarial assumptions and methods as adopted by the Board of Trustees, including a valuation interest rate of 8% per annum compounded annually. The actuary performs an analysis of Plan experience periodically and recommends changes if, in the opinion of the actuary, assumption changes are needed to more accurately reflect expected future experience. The recommendations of the last review were implemented with the January 1, 2013 valuation and are to remain in place until the next Experience Review. The next Experience Study will be based on the period from January 1, 2012 to December 31, 2016 and upon approval by the Board will be the basis of valuations performed from January 1, 2018 through January 1, 2022. A summary of the actuarial assumptions and methods used in this actuarial valuation are shown in Table 17.

Assets and Membership Data

The Retirement System reported the individual data for members of the System as of the valuation date to the actuary. In reviewing the data, it appears that significant changes were made in correcting previous data elements from past years. This had the end result of drastically decreasing the active population and increasing the deferred vested inactive population. The accuracy and validity of the valuation results is dependent on the accuracy of the membership data.

For 2015 we received the data in multiple files. Missing information was updated with either supplemental information sent or by using assumptions based on the current and prior year's data.



The Retirement Board
Employees' Retirement System of the County of Milwaukee

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While we did not verify the data at their source, we did perform tests for internal consistency and reasonableness. The amount of assets in the trust fund taken into account in the valuation was based on statements prepared for us by the Retirement System.

Funding Adequacy

The 2014 valuation performed last year resulted in an Actual Funding Contribution of \$373,500 against which \$440,000 was actually contributed. The excess amount of \$66,500 is included in the reestablished unfunded actuarial accrued liability amortization.

The Actual Funding Contribution for 2015, based on the results of this valuation, is \$770,384. It is expected that \$440,000 will be contributed during 2016 on behalf of the 2015 plan year. The deficiency of \$330,384 will be included in the reestablished unfunded actuarial accrued liability amortization as of January 1, 2016.

Budget Contribution

The 2016 Budget Contribution, expected to be contributed in 2017, is \$819,000.

Financial Results and Membership Data

Detailed summaries of the financial results of the valuation and membership data used in preparing the valuation are shown in the valuation report. The actuary prepared supporting schedules and required supplementary information included in the County of Milwaukee Annual Report of the Pension Board.

Qualifications

Qualified actuaries completed the valuation in accordance with accepted actuarial procedures as prescribed by the Actuarial Standards Board. The qualified actuaries are members of the American Academy of Actuaries and are experienced in performing actuarial valuations of public employee retirement systems. To the best of our knowledge, this report is complete and accurate and has been prepared in accordance with generally accepted actuarial principles and practice. The undersigned with actuarial designations are qualified to render the opinions contained in this report.

Respectfully submitted,

Larry Langer, ASA, EA, MAAA Principal, Consulting Actuary

Troy Jaros, FSA, EA, MAAA

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Senior Consultant, Retirement Actuary



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Executive Summary

This report presents the actuarial valuation as of January 1, 2015 for the OBRA 1990 Retirement System of the County of Milwaukee. The principal valuation results include:

- The Actual Funding Contribution for fiscal year 2015, which is \$770,384.
- The Budget Contribution for fiscal year 2016, which is \$819,000.
- The total funded ratio of the plan determined as of January 1, 2015, which is 44.8% based on the accrued liability and the actuarial value of assets.
- The determination of the actuarial gain or loss as of January 1, 2015, which is a gain of \$132,419.

The valuation was based on membership and financial data submitted by the Retirement System.

Changes Since Last Year

Legislative and Administrative Changes

There were no legislative or administrative changes since the prior valuation.

The benefit provisions and contribution provisions are summarized in Table 18.

Actuarial Assumptions and Methods

No actuarial assumptions have changed for 2015 since the previous valuation.

For 2015, the Retirement Board has adopted the following plan changes:

- Reduce the current 30 year amortization period to 20 years
- Immediately reflect expected administrative expenses rather than amortizing over 10 years
- Reduce future increases in payments from the current 3.00% policy to expected revenue growth, which is assumed to be 1.75% per year

For purposes of implementing these plan changes, we have financed all unfunded actuarial accrued liability (UAAL) as of January 1, 2015 over 21 years assuming that future payments for UAAL increase by 1.75%. The 2016 Budget Contribution will be based on financing all UAAL as of January 1, 2016 over 20 years. Beginning with the January 1, 2017 contribution, a base for unexpected UAAL will be established, and a contribution variance will be established and amortized over 5 years for the amount of budget contribution determined in this report that is not contributed during 2016.

The actuarial assumptions and methods are outlined in Table 17.



Contribution Amounts

The results of the valuation as of January 1, 2015 determine the Actual Funding Contribution for fiscal year 2015 and the Budget Contribution for fiscal year 2016. The Actual Funding Contribution for fiscal year 2015 is \$770,384. The Budget Contribution for fiscal year 2016 is \$819,000.

Reasons for Change in Budget Contribution Calculated by the Actuary

The Budget Contribution calculated by the actuary increased from \$402,000 for fiscal year 2015 to \$819,000 for fiscal year 2016. A reconciliation of the increase of \$417,000 is shown in the following table:

| ltem | Amo | ount | |
|--|----------------|------|---------|
| 1. 2015 Budget Contribution | | \$ | 402,000 |
| 2. Increase / (Decrease) during 2014 due to | | | |
| a. Unanticipated liability loss (gain) | \$ (16,000) | | |
| b. Asset loss (gain) other than expected | 2,000 | | |
| c. 2014 reimbursable expenses other than assumed | 437,000 | | |
| d. 2014 contribution variance other than assumed | - | | |
| e. Reestablished unfunded liability | (97,000) | | |
| f. Updated funding policy amortization g. Total | 42,000 | | 368,000 |
| g. Total | | | 300,000 |
| 3. 2015 Actual Contribution (1 + 2) | | \$ | 770,000 |
| 4. Expected Increase / (Decrease) during 2015 due to | | | |
| a. Normal cost and existing amortization schedule | \$ 11,000 | | |
| b. Phase-in of deferred asset (gains) losses | - | | |
| c. 2015 reimbursable expenses | 5,000 | | |
| d. Expected contribution variance for 2015 | - | | |
| e. Increase to unfunded liability | 33,000 | | |
| f. Increase due to assumption changes | <u> </u> | | |
| g. Total | | | 49,000 |
| 5. 2016 Budget Contribution (3 + 4) | | \$ | 819,000 |
| | | | |



Summary of Principal Results

Summarized below are the principal financial results for the OBRA 1990 Retirement System of the County of Milwaukee based upon the actuarial valuation as of January 1, 2015. Comparable results from the January 1, 2014 valuation are also shown.

| Item | January 1, 2015 | January 1, 2014 |
|--|--------------------|--------------------|
| Demographics | | |
| Active Members | | |
| Number | 394 | 326 |
| Average Annual Pay | \$ 9,962 | \$ 10,669 |
| Inactive Members | | |
| Members Receiving Benefits | | |
| Number | 47 | 39 |
| Average Annual Benefit Payment | \$ 1,810 | \$ 1,704 |
| Members With Deferred Benefits | | |
| Number | 4,783 | 4,434 |
| Average Annual Benefit Payment | \$ 288 | \$ 315 |
| Actual Funding Contribution | (Fiscal Year 2015) | (Fiscal Year 2014) |
| Normal Cost with Interest | \$ 92,281 | \$ 88,705 |
| Net Amortization Payments | 168,351 | 284,795 |
| Expenses | 509,752 | N/A |
| Total Contribution | \$ 770,384 | \$ 373,500 |
| Actuarial Funded Status | | |
| Accrued Liability | \$ 3,483,712 | \$ 3,410,663 |
| Actuarial Value of Assets | 1,560,392 | 1,602,994 |
| Unfunded Accrued Liability | \$ 1,923,320 | \$ 1,807,669 |
| Funded Ratio | 44.8 % | 47.0 % |



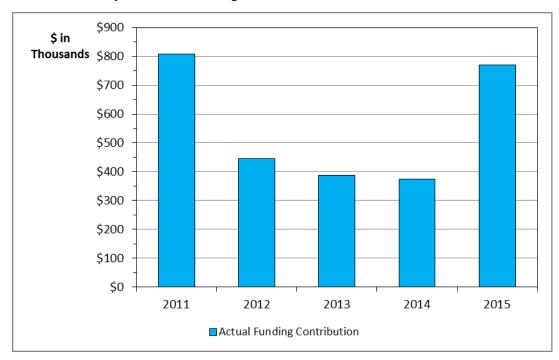
Five-Year History of Principal Financial Results

Five-Year History of Contribution Amounts

| | Actual Funding Contributions | | | | | | | | |
|---------------------------------|------------------------------|---------------------------------|------------|------------|--|--|--|--|--|
| Valuation as of January 1 | Normal Cost with Interest | Net Amortization Payments | Expenses | Total | | | | | |
| 2015 | \$ 92,281 | \$ 168,351 | \$ 509,752 | \$ 770,384 | | | | | |
| 2014 | 88,705 | 284,795 | | 373,500 | | | | | |
| 2013 | 163,337 | 225,288 | | 388,625 | | | | | |
| 2012 | 183,014 | 263,438 | | 446,452 | | | | | |
| 2011 | 189,829 | 617,199 | | 807,028 | | | | | |

The following chart shows a five-year history of employer contribution amounts:

Five-Year History of Actual Funding Contributions





Funded Ratio

The financing objective of the System is to:

- Fully fund all current costs based on the normal contribution rate determined under the funding method;
 and
- Liquidate the unfunded accrued liability based on the amortization schedules as required by the retirement code, i.e., a schedule of 5 or 20 years for each change in the unfunded accrued liability according to Section 3.1.

The total Actual Funding Contribution of \$770,384 when taken together with any contributions payable by members and asset returns, is the amount sufficient to achieve the financing objective for 2015.

The System's total funded ratio on the funding basis is measured by comparing the actuarial value of assets (same as market value) with the accrued liability. The accrued liability for pensions is the present value of benefits accumulated to date under the System's funding method.

On this basis, the System's funded ratio is 44.8% as of January 1, 2015. This funded ratio is based on an actuarial value of assets of \$1,560,392 and an accrued liability of \$3,483,712.

Reasons for Change in the Total Funded Ratio

The total funded ratio decreased from 47.0% as of January 1, 2014 to 44.8% as of January 1, 2015. We expected the funded ratio to decrease to 43.5% due to the level of expenses being paid out. Liability gains partially offset by asset losses resulted in a slight increase in the funded ratio to 44.8%. Note that the change in funding policy, whereby expenses for the year are paid immediately back to the fund, should reverse this trend.

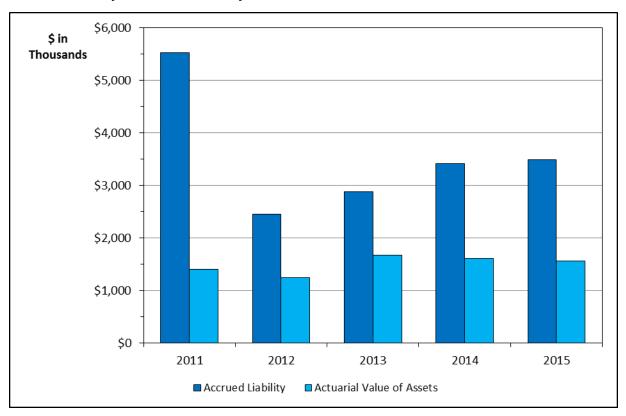


Five-Year History of Total Funded Ratio

| Valuation as of January 1 | Accrued Liability | Actuarial Value of Assets | Unfunded Accrued Liability | Funded Ratio |
|---------------------------------|----------------------|---------------------------------|----------------------------------|--------------|
| 2015 | \$ 3,483,712 | \$ 1,560,392 | \$ 1,923,320 | 44.8% |
| 2014 | 3,410,663 | 1,602,994 | 1,807,669 | 47.0 |
| 2013 | 2,868,585 | 1,661,607 | 1,206,978 | 57.9 |
| 2012 | 2,444,436 | 1,235,525 | 1,208,911 | 50.5 |
| 2011 | 5,519,524 | 1,402,225 | 3,617,299 | 25.4 |

The following chart shows a five-year history of the accrued liability and the actuarial value of assets:

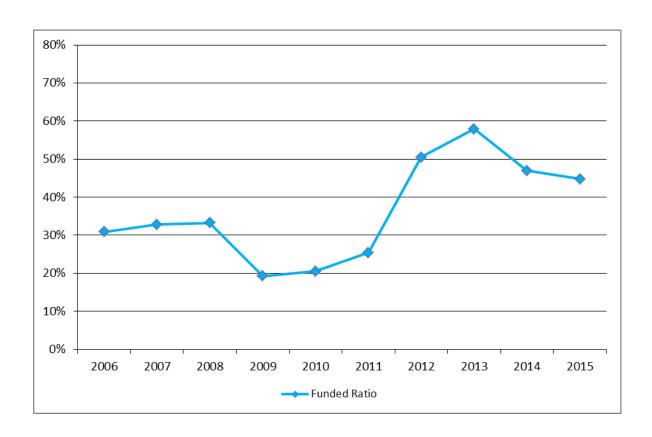
Five-Year History of Accrued Liability and Actuarial Value of Assets





The following chart shows a ten-year history of the total funded ratio:

Ten-Year History of Total Funded Ratio (2006 - 2015)





Rate of Return

The estimated investment return of the fund (i.e. total return including both realized and unrealized gains and losses) for fiscal years 2010 through 2014 is shown in the table below. The return based on the actuarial value of assets used for determining annual contribution rates is also shown.

The rate of return on market value reflects the investment earnings on the market value of assets from the beginning of the fiscal year to the end of the fiscal year. The actuarial assets are the assets recognized for valuation purposes. Actuarial assets are the same as market value for purposes of this valuation. The rates of return shown below have been developed by the actuary for illustrative purposes only. They are based on simplifying assumptions and as such, likely will not exactly match the returns presented by your investment consultants. The reader is encouraged to use the returns developed by the investment consultants.

Five Year History of Assets and Returns

| As of | Asset Values | | | | R | ates of Retur | 'n |
|-------|--------------|-----------|-----------|-----------|--------|---------------|---------|
| 12/31 | Market | | Actuarial | | Market | Actuarial | Assumed |
| 2014 | \$ | 1,560,392 | \$ | 1,560,392 | 6.4% | 6.4% | 8.0% |
| 2013 | | 1,602,994 | | 1,602,994 | 14.0% | 14.0% | 8.0% |
| 2012 | | 1,661,607 | | 1,661,607 | 12.6% | 12.6% | 8.0% |
| 2011 | | 1,235,525 | | 1,235,525 | (8.2%) | (8.2%) | 8.0% |
| 2010 | | 1,402,225 | | 1,402,225 | 9.7% | 9.7% | 8.0% |

Compound Rate of Return (five years): 6.6% 6.6%

GASB No. 67 and GASB No. 68 Disclosure

Please note that GASB Statement No. 25 (Financial Reporting for Defined Benefit Pension Plans) is applicable for fiscal years ending prior to 2014 and has been replaced by GASB Statement No. 67 (Financial Reporting for Pension Plans) for fiscal years ending 2014 and later. Similarly, GASB Statement No. 27 (Accounting for Pensions by State and Local Governmental Employers) is applicable for fiscal years ending prior to 2015 and has been replaced by GASB Statement No. 68 (Accounting and Financial Reporting for Pensions) for fiscal years ending 2015 and later.

The discount rate used to measure the total pension liability was 8.0%. The projection of cash flows used to determine the discount rate assumed that System contributions will continue to follow the current funding policy. Based on those assumptions, the System's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members.

The liabilities and normal cost presented for purposes of GASB No. 67 are calculated under the Entry Age Normal methodology per GASB Statement No. 67, with all other assumptions and methods listed in Table 11.



| Net Pension Liability (Asset) | | | | | | | | |
|--|----|------------------------|----|------------------------|--|--|--|--|
| December 31, 2014 December 31, 201 | | | | | | | | |
| Total Pension Liability Plan Fiduciary Net Position | \$ | 3,954,736 1,560,392 | \$ | 3,686,458 1,602,994 | | | | |
| Net Pension Liability (Asset) | \$ | 2,394,344 | \$ | 2,083,464 | | | | |
| Plan Fiduciary Net Position as a Percentage of the Total Pension Liability (Asset) | | 39.46% | | 43.48% | | | | |

Please see Tables 11 – 16 for a summary of all GASB 67 results and assumptions.



TABLE 1 – Summary Of Results Of Actuarial Valuation

| Item | | uary 1, 2015 | Jan | uary 1, 2014 |
|--|----|--------------|-----|--------------|
| Participant Data 1. Number of Participants | | | | |
| a) Active Participants | | 394 | | 326 |
| b) Participants with Deferred Benefits | | 4,783 | | 4,434 |
| c) Participants Receiving Benefits | | 47 | | 39 |
| d) Total | | 5,224 | | 4,799 |
| 2. Total Compensation | \$ | 3,925,214 | \$ | 3,477,968 |
| 3. Annual Annuities | \$ | 85,058 | \$ | 66,446 |
| Valuation Results | | | | |
| 4. Actuarial Accrued Liability | | | | |
| a) Active Participants | \$ | 443,185 | \$ | 596,708 |
| b) Participants with Deferred Benefits | | 2,278,756 | | 2,215,590 |
| c) Participants Receiving Benefits | | 761,771 | | 598,365 |
| d) Total | \$ | 3,483,712 | \$ | 3,410,663 |
| 5. Actuarial Value of Assets | \$ | 1,560,392 | \$ | 1,602,994 |
| 6. Funded Status: (5 / 4) | | 44.8 % | | 47.0 % |
| 7. Unfunded Actuarial Accrued Liability: (4 - 5) | \$ | 1,923,320 | \$ | 1,807,669 |
| 8. Normal Cost for the Plan Year | \$ | 85,445 | \$ | 82,134 |
| Employer Actual Funding Contribution and | | | | |
| Annual Required Contribution for Fiscal 2015 | | | | |
| Actual Funding Contribution Calculated by Actuary | | | | |
| a) Normal Cost with Interest | \$ | 92,281 | \$ | 88,705 |
| b) Net Annual Amortization Payments | | 168,351 | | 284,795 |
| c) Expenses | | 509,752 | | N/A_ |
| d) Total Contribution: ((a + b + c), not less than zero) | \$ | 770,384 | \$ | 373,500 |



TABLE 2 – Security Of Promised Benefits - Unfunded Actuarial Accrued Liability - Funded Status

| Item | January 1, 2015 | January 1, 2014 |
|--|----------------------|----------------------|
| Actuarial Accrued Liability | | |
| a. Active Participants Retirement Benefits Withdrawal Benefits | \$ 358,004 85,181 | \$ 519,415 77,293 |
| Total Active | 443,185 | 596,708 |
| b. Participants with Deferred Benefits | 2,278,756 | 2,215,590 |
| c. Participants Receiving Benefits | 761,771 | 598,365 |
| d. Total All Participants | 3,483,712 | 3,410,663 |
| 2. Actuarial Value of Assets | 1,560,392 | 1,602,994 |
| Unfunded Actuarial Accrued Liability (1d - 2) | 1,923,320 | 1,807,669 |
| 4. Funded Status: (2 / 1d) | 44.8% | 47.0% |

Both valuations were based on the same plan provisions.

The interest rate used as of January 1, 2015 and January 1, 2014 was 8.00%



TABLE 3 – Actuarial Gain/(Loss) For Plan Year Ending

| Item | Am | ount | |
|---|-----------|------|-----------|
| Actuarial Accrued Liability at January 1, 2014 | | \$ | 3,410,663 |
| 2. Increases/(Decreases) During the Year | | | |
| a. Normal Cost for 2014 | 82,134 | | |
| b. Member Contributions | - | | |
| c. Benefit Payments and Refunds | (126,636) | | |
| d. Assumed Interest to End of Year* | 274,456 | | |
| e. Assumption Changes | | | |
| f. Total: (a + b + c + d + e) | | | 229,954 |
| 3. Expected Liability at January 1, 2015: (1 + 2) | | | 3,640,617 |
| 4. Actuarial Accrued Liability at January 1, 2015 | | | 3,483,712 |
| 5. Liability Gain/(Loss): (3 - 4) | | \$ | 156,905 |
| 6. Actuarial Value of Assets at January 1, 2014 | | \$ | 1,602,994 |
| 7. Increases/(Decreases) During the Year | | | |
| a. County Contributions | 440,000 | | |
| b. Member Contributions | - | | |
| c. Benefit Payments and Refunds | (126,636) | | |
| d. Administrative Expenses | (454,752) | | |
| e. Assumed Interest to End of Year* | 123,272 | | |
| f. Total: (a + b + c + d + e) | | | (18,116) |
| 8. Expected Actuarial Assets at January 1, 2015 (6 + 7) | | | 1,584,878 |
| 9. Actuarial Value of Assets at January 1, 2015 | | | 1,560,392 |
| 10. Actuarial Asset Gain/(Loss): (9 - 8) | | \$ | (24,486) |
| 11. Total Gain/(Loss): (5 + 10) | | \$ | 132,419 |



TABLE 4 – Amortization Schedule For Actual Funding Contribution For 2015 Plan Year

| | A | Amortization Period | | | Balances | | | | |
|------------------------|----------|---------------------|-----------|---------|-----------|----|------------|----|---------|
| | Date | Initial | Remaining | Last | | | | | |
| Type of Payment | Created | Years | Years | Payment | Initial | С | utstanding | F | Payment |
| 1. Charges | | | | | | | | | |
| Reestablished unfunded | 1/1/2015 | 21 | 21 | 2035 | 1,923,320 | | 1,923,320 | | 168,351 |
| Total Charges | | | | | | \$ | 1,923,320 | \$ | 168,351 |
| 2. Credits | | | | | | | | | |
| Total Credits | | | | | | \$ | - | \$ | - |
| 3. Net Amount (1 - 2) | | | | | | \$ | 1,923,320 | \$ | 168,351 |

Amortization Schedule for Actual Funding Requirements For 2016 Budget

| | Amortization Period | | | Balances | | | | |
|--------------------------|---------------------|---------|-----------|----------|-----------|----|------------|---------------|
| | Date | Initial | Remaining | Last | | | | |
| Type of Payment | Created | Years | Years | Payment | Initial | 0 | utstanding | Payment |
| 1. Charges | | | | | | | | |
| Reestablished unfunded | 1/1/2015 | 21 | 20 | 2035 | 1,923,320 | | 1,908,835 | 171,297 |
| Reestablished unfunded | 1/1/2016 | 20 | 20 | 2035 | 368,384 | | 368,384 | 33,058 |
| Total Charges | | | | | | \$ | 2,277,219 | \$ 204,355 |
| 2. Credits | | | | | | | | |
| Total Credits | | | | | | \$ | - | \$ - |
| 3. Net Amount (1 - 2) | | | | | | \$ | 2,277,219 | \$ 204,355 |



TABLE 5 – Statement Of Normal Cost For Current And Prior Plan Year Actual Funding Calculations

| Item | Janua | ary 1, 2015 | January 1, 2014 | | |
|--|-------|------------------|-----------------|------------------|--|
| Unit Credit Normal Cost a. Active Participants | | | | | |
| Retirement Benefits Withdrawal Benefits | \$ | 60,080 25,365 | \$ | 61,130 21,004 | |
| Total | | 85,445 | | 82,134 | |
| 2. Interest to the End of the Plan Year | | 6,836 | | 6,571 | |
| 3. Normal Cost for the Plan Year: (1 + 2) | | 92,281 | | 88,705 | |



TABLE 6 – Contribution Requirements – End-Of-Year Basis Actual And Budget Amounts For Current Plan Year Budget Amount For Next Plan Year

| ltem | 2016 | 2015 | | | | | |
|--|---------------|------|---------|----|---------|--|--|
| item | Budget | | Actual | | Budget | | |
| Normal Cost with Interest | \$ 100,000 | \$ | 92,281 | \$ | 97,000 | | |
| 2. Net Annual Amortizations | 204,000 | | 168,351 | | 305,000 | | |
| 3. Expenses | 515,000 | | 509,752 | | - | | |
| 4. Total Contribution (1 + 2 +3, not less than zero) | \$ 819,000 | \$ | 770,384 | \$ | 402,000 | | |

The budgeted contributions shown above for the 2016 and 2015 plan years were estimated based on participant data as of January 1, 2015, and January 1, 2014, respectively.



TABLE 7 – Summary Statement Of Market Value Of Plan Assets

| Asset Category | | mber 31, 2014 | December 31, 2013 | | |
|--|----|----------------------|-------------------|--------------------|--|
| Cash and Cash Equivalents Investments at Fair Value | \$ | (9,149) 1,561,458 | \$ | 2,622 1,232,289 | |
| 3. Contributions Receivable | | 8,083 | | 368,083 | |
| Net Assets Available for Benefits (1 + 2 + 3) | \$ | 1,560,392 | \$ | 1,602,994 | |



TABLE 8 – Summary Reconciliation Of Market Value Of Plan Assets

| Item | l . | Year Ending mber 31, 2014 | For Year Ending December 31, 2013 | | |
|--|-----|-------------------------------|--------------------------------------|-------------------------------|--|
| Market Value of Assets at the Beginning of the Year | \$ | 1,602,994 | \$ | 1,661,607 | |
| 2. Contributions for Plan Year a. County b. Member c. Total | \$ | 440,000 - 440,000 | \$ | 360,000 - 360,000 | |
| Disbursements for Plan Year a. Benefit payments and refunds b. Administrative expenses payable to County c. Total | \$ | 126,636 454,752 581,388 | \$ | 133,976 507,799 641,775 | |
| 4. Market Value of Assets at the End of the Year 5. Net Investment Income* (4 - 1 - 2c + 3c) | | 1,560,392 98,786 | | 1,602,994 223,162 | |
| 6. Expected Net Investment Income (8.00% per annum)7. Gain (Loss) on Market Value of Assets(5 - 6) | | 123,272 (24,486) | | 127,673 95,489 | |
| 8. Estimated Rate of Return | | 6.4% | | 14.0% | |

^{*}Net Investment Income is the change in the value of assets for reasons other than contributions and disbursements.



TABLE 9 – Actuarial Value Of Plan Assets

| | Jan | uary 1, 2015 | January 1, 2014 | | |
|---------------------------|-----|--------------|-----------------|-----------|--|
| Actuarial Value of Assets | \$ | 1,560,392 | \$ | 1,602,994 | |

The actuarial value of plan assets is equal to the market value of plan assets.



TABLE 10 – Employer Contributions For 2014 Plan Year And Variance From The Funding Calculation Contribution

| | | Amount | | | | | | |
|----|----------------------------|-----------------------------|--|--------------|----|-----------------------|----|--------------|
| 1. | Total Funding Ca | \$ | 373,500 | | | | | |
| 2. | Total Employer | Contributions Made, E | nd-of-Y | ear Basis | | | | |
| | Contribution Made | Fraction of a Year Invested | Contribution Interest to Amount Year End* | | | End of Year Amount | | |
| | Bi-weekly 2/15/2015 | 50.0% 0.0% | \$ | - 440,000 | \$ | - | \$ | - 440,000 |
| | 4/15/2015 | 0.0% | | - | | - | | - |
| | 5/15/2015 | 0.0% | | - | | - | | - |
| | 6/15/2015 7/15/2015 | 0.0% 0.0% | | <u>-</u> | | - - | | - |
| | Total | | \$ | 440,000 | \$ | - | \$ | 440,000 |
| 3. | Variance from F (2 - 1) | unding Calculation Am | ount** | | | | \$ | 66,500 |

^{*} Interest to 12/31/2014 at 8.00% per annum

^{**} Variance is included in the reestablished UAAL amortization



TABLE 11 – Actuarial Methods and Assumptions for GASB 67/68 Disclosure Purposes

The total pension liability as of December 31, 2014 was determined by rolling forward the total pension liability as of January 1, 2014 to December 31, 2014 using the following actuarial methods and assumptions, applied to all periods included in the measurement. All other assumptions such as retirement rates, termination rates, and disability rates used to determine the total pension liability are set forth in Table 17 – Description of Actuarial Assumptions and Methods.

| Valuation Date: | January 1, 2014 |
|------------------------|--|
| Actuarial Cost Method: | Entry Age Normal – Level Percentage of Pay |
| Amortization Method: | For pension expense; the difference between expected and actual liability experience and changes of assumptions are amortized over the average of the expected remaining service lives of all members. The difference between projected and actual earnings is amortized over a closed period of five years. |
| Mortality: | Healthy pensioners: The sex-distinct UP-1994 Mortality Table with Projection scale AA to 2012 and then fully generational thereafter using scale AA. |
| | Active members: 70% of the rates applicable to healthy pensioners. |
| Experience Study: | The actuarial assumptions used were based on the results of an actuarial experience study for the period January 1, 2006 through December 31, 2011. |



TABLE 12 – GASB 67 Net Pension Liability as of December 31, 2014

| Schedule of Changes in Net Pension Liability as of December 31, 2014 | | | | | | | | |
|--|----------|---|--|--|--|--|--|--|
| Total Pension Liability | | | | | | | | |
| Service Cost Interest Changes of Benefit Terms Difference between Expected and Actual Experience Change of Assumptions Benefit Payments, including Refund of Member Contributions Net Change in Total Pension Liability Total Pension Liability - Beginning of Year | \$ | 97,190 297,724 - - - (126,636) 268,278 3,686,458 | | | | | | |
| Total Pension Liability - End of Year Plan Fiduciary Net Position | Φ | 3,954,736 | | | | | | |
| Employer Contributions Member Contributions Net Investment Income Benefit Payments, including Refund of Member Contributions Administrative Expenses Other Net Change in Plan Fiduciary Net Position | \$ | 440,000 - 98,786 (126,636) (454,752) - (42,602) | | | | | | |
| Plan Fiduciary Net Position - Beginning of Year Plan Fiduciary Net Position - End of Year | \$ \$ | 1,602,994 1,560,392 | | | | | | |

| Net Pension Liability (Asset) | | | | | | | | | | |
|--|----|------------------------|----|------------------------|--|--|--|--|--|--|
| December 31, 2014 December 31, 201 | | | | | | | | | | |
| Total Pension Liability Plan Fiduciary Net Position | \$ | 3,954,736 1,560,392 | \$ | 3,686,458 1,602,994 | | | | | | |
| Net Pension Liability (Asset) | \$ | 2,394,344 | \$ | 2,083,464 | | | | | | |
| Plan Fiduciary Net Position as a Percentage of the Total Pension Liability (Asset) | | 39.46% | | 43.48% | | | | | | |



TABLE 13 – Sensitivity of the Net Pension Liability As Of December 31, 2014 To Changes In The Discount Rate

| Sensitivity of the Net Pension Liability to Changes in the Discount Rate | | | | | | | |
|--|-----------|-----------|-----------|--|--|--|--|
| 1% Decrease Current 1% Increa | | | | | | | |
| Discount Rate | 7.00% | 8.00% | 9.00% | | | | |
| Net Pension Liability (Asset) | 3,231,215 | 2,394,344 | 1,769,404 | | | | |



TABLE 14 – Estimate Of The Pension Expense For Year Ended December 31, 2015

| Estimated Pension Expense for The Fiscal Year Ended December 31, 2015 | | | | | | | |
|---|----|-----------|--|--|--|--|--|
| Service Cost | \$ | 104,965 | | | | | |
| Interest | | 319,555 | | | | | |
| Difference between Expected and Actual Experience | | - | | | | | |
| Change of Assumptions | | - | | | | | |
| Estimated Contributions Member | | - | | | | | |
| Projected Earnings on Plan Investments | | (104,392) | | | | | |
| Difference between Expected and Actual Earnings | | - | | | | | |
| Administrative Expense | | 387,927 | | | | | |
| Other | | - | | | | | |
| Changes of Benefit Terms | | | | | | | |
| Total Pension Expense | | 708,055 | | | | | |



TABLE 15 – Projection of Fiduciary Net Position

| | Projected Beginning | Projected Total | Pro | niected Benefit | Pro | jected Administrative | Pro | iected Investment | Projected Ending |
|------|------------------------|-----------------|---------|-----------------|-----|-----------------------|-----------|-------------------|------------------------|
| Year | Fiduciary Net Position | | • • • • | Payments | | Expense | | Earnings | Fidiciary Net Position |
| 2015 | \$ 1,560,392 | | \$ | 133,078 | Φ. | 387,927 | \$ | 119,611 | |
| 2016 | 1,598,998 | 440,000 | Ψ | 137,733 | Ψ | 352,615 | Ψ | 336,055 | 1,884,705 |
| 2017 | 1,884,705 | 653,538 | | 153,093 | | 327,690 | | 123,597 | 2,181,057 |
| 2017 | 2,181,057 | 632,365 | | 164,170 | | 306,549 | | 152,198 | 2,494,901 |
| 2019 | 2,494,901 | 616,519 | | 183,753 | | 290,795 | | 179,697 | 2,816,569 |
| 2019 | 2,494,901 | 603,833 | | 204,934 | | 275,937 | | 204,044 | 3,143,575 |
| 2020 | , , | 590,591 | | 222,516 | | 262,439 | | 231,771 | , , |
| | 3,143,575 | , | | | | * | | , | 3,480,982 |
| 2022 | 3,480,982 | 579,605 | | 235,198 | | 251,248 | | 261,186 | 3,835,327 |
| 2023 | 3,835,327 | 571,539 | | 237,318 | | 245,468 | | 304,634 | 4,228,714 |
| 2024 | 4,228,714 | 578,657 | | 253,437 | | 244,128 | | 339,573 | 4,649,379 |
| 2025 | 4,649,379 | 589,875 | | 287,838 | | 244,616 | | 359,662 | 5,066,462 |
| 2026 | 5,066,462 | 588,879 | | 315,965 | | 233,793 | | 380,524 | 5,486,107 |
| 2027 | 5,486,107 | 576,482 | | 333,931 | | 221,522 | | 420,533 | 5,927,669 |
| 2028 | 5,927,669 | 571,227 | | 361,254 | | 220,527 | | 454,403 | 6,371,518 |
| 2029 | 6,371,518 | 565,589 | | 370,941 | | 218,845 | | 498,720 | 6,846,041 |
| 2030 | 6,846,041 | 569,140 | | 401,566 | | 219,816 | | 538,254 | 7,332,053 |
| 2031 | 7,332,053 | 575,464 | | 420,065 | | 211,967 | | 566,280 | 7,841,765 |
| 2032 | 7,841,765 | 571,659 | | 429,768 | | 209,459 | | 612,377 | 8,386,574 |
| 2033 | 8,386,574 | 573,555 | | 431,475 | | 209,167 | | 665,298 | 8,984,785 |
| 2034 | 8,984,785 | 584,854 | | 453,200 | | 214,828 | | 699,254 | 9,600,865 |
| 2035 | 9,600,865 | 583,104 | | 469,938 | | 210,525 | | 740,626 | 10,244,132 |
| 2036 | 10,244,132 | 574,097 | | 473,734 | | 207,761 | | 509,973 | 10,646,707 |
| 2037 | 10,646,707 | 283,124 | | 475,993 | | 214,440 | | 828,397 | 11,067,795 |
| 2038 | 11,067,795 | 278,458 | | 471,110 | | 216,629 | | 870,786 | 11,529,300 |
| 2039 | 11,529,300 | 282,302 | | 502,759 | | 224,243 | | 912,228 | 11,996,828 |
| 2040 | 11,996,828 | 291,909 | | 530,113 | | 218,518 | | 924,047 | 12,464,153 |
| 2041 | 12,464,153 | 277,006 | | 546,446 | | 215,064 | | 948,801 | 12,928,450 |
| 2042 | 12,928,450 | 250,112 | | 576,530 | | 218,041 | | 997,227 | 13,381,218 |
| 2043 | 13,381,218 | 235,681 | | 591,398 | | 215,126 | | 1,029,112 | 13,839,487 |
| 2044 | 13,839,487 | 217,496 | | 610,318 | | 215,755 | | 1,081,475 | 14,312,385 |
| 2045 | 14,312,385 | 215,755 | | 653,695 | | 215,722 | | 1,119,313 | 14,778,036 |
| 2046 | 14,778,036 | 215,722 | | 709,112 | | 213,063 | | 1,151,765 | 15,223,348 |
| 2047 | 15,223,348 | 213,063 | | 745,647 | | 206,583 | | 1,182,136 | 15,666,317 |
| 2048 | 15,666,317 | 206,583 | | 816,490 | | 204,275 | | 1,218,966 | 16,071,101 |
| 2049 | 16,071,101 | 204,275 | | 897,828 | | 185,400 | | 1,231,591 | 16,423,739 |
| 2050 | 16,423,739 | 185,400 | | 955,223 | | 167,942 | | 1,258,967 | 16,744,941 |
| 2051 | 16,744,941 | 167,942 | | 1,063,637 | | 157,977 | | 1,287,903 | 16,979,172 |
| 2052 | 16,979,172 | 157,977 | | 1,158,124 | | 129,047 | | 1,283,970 | 17,133,948 |
| 2053 | 17,133,948 | 129,047 | | 1,234,923 | | 109,792 | | 1,303,014 | 17,221,294 |
| 2054 | 17,221,294 | 109,792 | | 1,321,534 | | 91,941 | | 1,308,008 | 17,225,619 |
| 2055 | 17,225,619 | 91,941 | | 1,384,073 | | 75,234 | | 1,307,045 | 17,165,298 |
| 2056 | 17,165,298 | 75,234 | | 1,495,360 | | 66,758 | | 1,306,084 | 16,984,498 |
| 2057 | 16,984,498 | 66,758 | | 1,574,546 | | 41,960 | | 1,272,192 | 16,706,942 |
| 2058 | 16,706,942 | 41,960 | | 1,625,416 | | 27,017 | | 1,257,847 | 16,354,316 |
| 2059 | 16,354,316 | 27,017 | | 1,646,471 | | 19,952 | | 1,236,688 | 15,951,598 |
| 2060 | 15,951,598 | 19,952 | | 1,651,739 | | 12,472 | | 1,203,849 | 15,511,188 |
| 2061 | 15,511,188 | 12,472 | | 1,639,240 | | 6,816 | | 1,170,931 | 15,048,535 |
| 2062 | 15,048,535 | 6,816 | | 1,605,547 | | 1,516 | | 1,135,596 | 14,583,884 |
| 2063 | 14,583,884 | 1,516 | | 1,561,592 | | - | | 1,103,933 | 14,127,741 |
| 2064 | 14,127,741 | - | | 1,516,139 | | - | | 1,070,740 | 13,682,342 |
| | | | | | | | | | |



TABLE 15 – Projection of Fiduciary Net Position - continued

| | Projected Beginning | Projected Total | Projected Benef | it Projected Administrative | Projected Investment | Projected Ending |
|-------------|------------------------|----------------------|-----------------|-----------------------------|----------------------|------------------------|
| <u>Year</u> | Fiduciary Net Position | Contributions | Payments | <u>Expense</u> | <u>Earnings</u> | Fidiciary Net Position |
| 2065 | \$ 13,682,342 | \$ - | \$ 1,468,97 | 3 \$ - | \$ 1,036,959 | \$ 13,250,323 |
| 2066 | 13,250,323 | - | 1,419,95 | - | 1,004,321 | 12,834,694 |
| 2067 | 12,834,694 | - | 1,368,86 | - | 973,074 | 12,438,899 |
| 2068 | 12,438,899 | - | 1,315,58 | - | 943,501 | 12,066,818 |
| 2069 | 12,066,818 | - | 1,260,09 | - | 915,911 | 11,722,633 |
| 2070 | 11,722,633 | - | 1,202,29 | - | 890,644 | 11,410,978 |
| 2071 | 11,410,978 | - | 1,142,16 | - | 868,070 | 11,136,881 |
| 2072 | 11,136,881 | - | 1,079,93 | - | 848,584 | 10,905,527 |
| 2073 | 10,905,527 | - | 1,015,75 | - | 832,594 | 10,722,367 |
| 2074 | 10,722,367 | - | 949,86 | - | 820,526 | 10,593,029 |
| 2075 | 10,593,029 | - | 882,72 | - | 812,813 | 10,523,116 |
| 2076 | 10,523,116 | - | 814,68 | - | 809,889 | 10,518,321 |
| 2077 | 10,518,321 | - | 746,29 | - | 812,188 | 10,584,215 |
| 2078 | 10,584,215 | - | 678,00 | - | 820,139 | 10,726,347 |
| 2079 | 10,726,347 | - | 610,30 | - | 834,165 | 10,950,207 |
| 2080 | 10,950,207 | - | 543,96 | - | 854,676 | 11,260,914 |
| 2081 | 11,260,914 | - | 479,68 | - | 882,055 | 11,663,282 |
| 2082 | 11,663,282 | - | 418,07 | - | 916,661 | 12,161,873 |
| 2083 | 12,161,873 | - | 359,86 | - | 958,832 | 12,760,843 |
| 2084 | 12,760,843 | - | 305,61 | - | 1,008,878 | 13,464,104 |
| 2085 | 13,464,104 | - | 255,82 | - | 1,067,092 | 14,275,368 |
| 2086 | 14,275,368 | - | 210,91 | - | 1,133,755 | 15,198,208 |
| 2087 | 15,198,208 | - | 171,03 | - | 1,209,147 | 16,236,317 |
| 2088 | 16,236,317 | - | 136,25 | - | 1,293,560 | 17,393,622 |
| 2089 | 17,393,622 | - | 106,50 | - | 1,387,312 | 18,674,434 |
| 2090 | 18,674,434 | - | 81,55 | - | 1,490,755 | 20,083,630 |



TABLE 16 – Actuarial Present Values of Projected Benefit Payments

| | | | | | | | Present Value of |
|-------------|-------------------------|--------------------------|--------------------------|----------------------------|-------------------|-------------------|-----------------------|
| | | | Funded Portion of | Unfunded Portion of | Present Value of | Present Value of | Benefit Payments |
| | Projected Beginning | Projected Benefit | Projected Benefit | Projected Benefit | Funded Benefit | Unfunded Benefit | Using Single Discount |
| <u>Year</u> | Fiduciarty Net Position | <u>Payments</u> | <u>Payments</u> | <u>Payments</u> | Payments at 8.00% | Payments at 3.34% | Rate of 8.00% |
| 2015 | \$ 1,560,392 | \$ 133,078 | \$ 133,078 | \$ - | \$ 133,078 | \$ - | 133,078 |
| 2016 | 1,598,998 | 137,733 | 137,733 | - | 127,531 | - | 127,531 |
| 2017 | 1,884,705 | 153,093 | 153,093 | - | 131,253 | - | 131,253 |
| 2018 | 2,181,057 | 164,170 | 164,170 | - | 130,323 | - | 130,323 |
| 2019 | 2,494,901 | 183,753 | 183,753 | - | 135,064 | - | 135,064 |
| 2020 | 2,816,569 | 204,934 | 204,934 | _ | 139,475 | - | 139,475 |
| 2021 | 3,143,575 | 222,516 | 222,516 | _ | 140,223 | - | 140,223 |
| 2022 | 3,480,982 | 235,198 | 235,198 | - | 137,236 | - | 137,236 |
| 2023 | 3,835,327 | 237,318 | 237,318 | _ | 128,216 | - | 128,216 |
| 2024 | 4,228,714 | 253,437 | 253,437 | _ | 126,782 | - | 126,782 |
| 2025 | 4,649,379 | 287,838 | 287,838 | - | 133,325 | - | 133,325 |
| 2026 | 5,066,462 | 315,965 | 315,965 | _ | 135,512 | _ | 135,512 |
| 2027 | 5,486,107 | 333,931 | 333,931 | _ | 132,609 | - | 132,609 |
| 2028 | 5,927,669 | 361,254 | 361,254 | _ | 132,832 | _ | 132,832 |
| 2029 | 6,371,518 | 370,941 | 370,941 | _ | 126,291 | _ | 126,291 |
| 2030 | 6,846,041 | 401,566 | 401,566 | _ | 126,590 | _ | 126,590 |
| 2031 | 7,332,053 | 420,065 | 420,065 | _ | 122,613 | _ | 122,613 |
| 2032 | 7,841,765 | 429,768 | 429,768 | _ | 116,153 | _ | 116,153 |
| 2033 | 8,386,574 | 431,475 | 431,475 | _ | 107,976 | _ | 107,976 |
| 2034 | 8,984,785 | 453,200 | 453,200 | _ | 105,012 | _ | 105,012 |
| 2035 | 9,600,865 | 469,938 | 469,938 | _ | 100,824 | _ | 100,824 |
| 2036 | 10,244,132 | 473,734 | 473,734 | _ | 94,110 | _ | 94,110 |
| 2037 | 10,646,707 | 475,993 | 475,993 | _ | 87,554 | _ | 87,554 |
| 2038 | 11,067,795 | 471,110 | 471,110 | _ | 80,237 | _ | 80,237 |
| 2039 | 11,529,300 | 502,759 | 502,759 | | 79,285 | | 79,285 |
| 2040 | 11,996,828 | 530,113 | 530,113 | _ | 77,406 | | 77,406 |
| 2040 | 12,464,153 | 546,446 | 546,446 | _ | 73,880 | _ | 73,880 |
| 2042 | 12,928,450 | 576,530 | 576,530 | _ | 72,174 | _ | 72,174 |
| 2042 | 13,381,218 | 591,398 | 591,398 | _ | 68,551 | _ | 68,551 |
| 2043 | 13,839,487 | 610,318 | 610,318 | _ | 65,504 | _ | 65,504 |
| 2044 | 14,312,385 | 653,695 | 653,695 | | 64,962 | | 64,962 |
| 2045 | 14,778,036 | 709,112 | 709,112 | _ | 65,250 | | 65,250 |
| 2040 | 15,223,348 | 745,647 | 745,647 | | 63,529 | | 63,529 |
| 2047 | 15,666,317 | 816,490 | 816,490 | | 64,412 | | 64,412 |
| 2049 | 16,071,101 | 897,828 | 897,828 | | 65,582 | | 65,582 |
| 2050 | 16,423,739 | 955,223 | 955,223 | | 64,606 | | 64,606 |
| 2051 | 16,744,941 | 1,063,637 | 1,063,637 | _ | 66,610 | | 66,610 |
| 2052 | 16,979,172 | 1,158,124 | 1,158,124 | _ | 67,155 | _ | 67,155 |
| 2053 | 17,133,948 | 1,234,923 | 1,234,923 | _ | 66,304 | _ | 66,304 |
| 2054 | 17,133,940 | 1,321,534 | 1,321,534 | | 65,698 | | 65,698 |
| 2055 | 17,225,619 | 1,384,073 | 1,384,073 | _ | 63,710 | - | 63,710 |
| 2056 | 17,165,298 | 1,495,360 | 1,495,360 | - | 63,734 | - | 63,734 |
| 2057 | 16,984,498 | 1,574,546 | 1,574,546 | _ | 62,138 | | 62,138 |
| 2057 | 16,706,942 | 1,625,416 | 1,625,416 | - | 59,394 | - | 59,394 |
| 2056 | 16,354,316 | 1,646,471 | 1,646,471 | - | 55,707 | - | 59,394 55,707 |
| 2060 | 15,951,598 | 1,651,739 | 1,651,739 | - | 51,745 | - | 55,707 |
| 2060 | | | | - | • | - | 47,550 |
| 2061 | 15,511,188 | 1,639,240 | 1,639,240 | - | 47,550 | - | |
| 2062 | 15,048,535 | 1,605,547 | 1,605,547 | - | 43,123 38,835 | - | 43,123 38,835 |
| 2063 | 14,583,884 | 1,561,592 | 1,561,592 | - | 34,912 | - | 36,635 34,912 |
| 2004 | 14,127,741 | 1,516,139 | 1,516,139 | - | 34,912 | - | 34,912 |



TABLE 16 – Actuarial Present Values of Projected Benefit Payments - continued

| | | | | | | | Present Value of |
|-------------|-------------------------|-----------------|-------------------|---------------------|-------------------|-------------------|-----------------------|
| | | | | Unfunded Portion of | | Present Value of | Benefit Payments |
| | Projected Beginning | • | Projected Benefit | Projected Benefit | Funded Benefit | Unfunded Benefit | Using Single Discount |
| <u>Year</u> | Fiduciarty Net Position | <u>Payments</u> | <u>Payments</u> | <u>Payments</u> | Payments at 8.00% | Payments at 3.34% | Rate of 8.00% |
| 2065 | \$ 13,682,342 | | . , , | \$ - | \$ 31,320 | \$ - | \$ 31,320 |
| 2066 | 13,250,323 | 1,419,950 | 1,419,950 | - | 28,032 | = | 28,032 |
| 2067 | 12,834,694 | 1,368,869 | 1,368,869 | - | 25,022 | - | 25,022 |
| 2068 | 12,438,899 | 1,315,582 | 1,315,582 | - | 22,267 | - | 22,267 |
| 2069 | 12,066,818 | 1,260,096 | 1,260,096 | - | 19,748 | - | 19,748 |
| 2070 | 11,722,633 | 1,202,299 | 1,202,299 | - | 17,446 | - | 17,446 |
| 2071 | 11,410,978 | 1,142,167 | 1,142,167 | - | 15,346 | - | 15,346 |
| 2072 | 11,136,881 | 1,079,938 | 1,079,938 | - | 13,435 | - | 13,435 |
| 2073 | 10,905,527 | 1,015,754 | 1,015,754 | - | 11,701 | - | 11,701 |
| 2074 | 10,722,367 | 949,864 | 949,864 | - | 10,131 | - | 10,131 |
| 2075 | 10,593,029 | 882,726 | 882,726 | - | 8,718 | - | 8,718 |
| 2076 | 10,523,116 | 814,684 | 814,684 | - | 7,450 | - | 7,450 |
| 2077 | 10,518,321 | 746,294 | 746,294 | - | 6,319 | - | 6,319 |
| 2078 | 10,584,215 | 678,007 | 678,007 | - | 5,315 | - | 5,315 |
| 2079 | 10,726,347 | 610,305 | 610,305 | - | 4,430 | - | 4,430 |
| 2080 | 10,950,207 | 543,969 | 543,969 | - | 3,656 | - | 3,656 |
| 2081 | 11,260,914 | 479,687 | 479,687 | - | 2,985 | - | 2,985 |
| 2082 | 11,663,282 | 418,070 | 418,070 | - | 2,409 | - | 2,409 |
| 2083 | 12,161,873 | 359,862 | 359,862 | - | 1,920 | - | 1,920 |
| 2084 | 12,760,843 | 305,617 | 305,617 | - | 1,510 | - | 1,510 |
| 2085 | 13,464,104 | 255,828 | 255,828 | - | 1,170 | - | 1,170 |
| 2086 | 14,275,368 | 210,915 | 210,915 | - | 893 | - | 893 |
| 2087 | 15,198,208 | 171,038 | 171,038 | - | 671 | - | 671 |
| 2088 | 16,236,317 | 136,255 | 136,255 | - | 495 | - | 495 |
| 2089 | 17,393,622 | 106,500 | 106,500 | - | 358 | - | 358 |
| 2090 | 18,674,434 | 81,559 | 81,559 | - | 254 | - | 254 |
| | | | | | | | |



TABLE 17 – Description Of Actuarial Assumptions And Methods to Determiner Projected Contributions

ASSUMPTIONS

Interest Rate: 8.0% per annum, compounded annually. The components are 3.00% for inflation and 5.00% for the real rate of return.

Salary Increase: 4.50% per annum, compounded annually.

Payroll Growth: 3.00% per annum.

Separation From Service: Retirement age is assumed to be age 65. Illustrative rates of assumed separation from service (mortality and turnover) are shown in the following tables.

Annual Rates per 100 Participants

| Attained | Mortality | | | |
|----------|-----------|---------|--|--|
| Age | Males | Females | | |
| 45 | 0.13 | 0.11 | | |
| 50 | 0.19 | 0.19 | | |
| 55 | 0.31 | 0.38 | | |
| 60 | 0.59 | 0.76 | | |
| 65 | 1.11 | 1.26 | | |
| 70 | 1.86 | 1.96 | | |
| 75 | 2.87 | 3.40 | | |
| 80 | 5.03 | 5.86 | | |
| 85 | 8.61 | 10.72 | | |

Healthy pensioners: The sex-distinct UP-1994 Mortality Table with Projection scale AA to 2012 and then fully generational thereafter using

scale AA.

Active members: 70% of the rates applicable to healthy pensioners.



Annual Rates per 100 Participants

| Withdrawal | | | | | | | | | | |
|-----------------|---|-------|-------|-------|-------|-------|--|--|--|--|
| Attained Age | Select Rates by Year of Employment + Ultimate | | | | | | | | | |
| | 0 | 1 | 2 | 3 | 4 | Ult. | | | | |
| 20 | 33.75 | 31.50 | 28.50 | 24.00 | 19.05 | 15.00 | | | | |
| 25 | 31.35 | 29.46 | 26.88 | 22.86 | 18.54 | 14.25 | | | | |
| 30 | 27.30 | 25.47 | 22.92 | 18.99 | 15.36 | 12.00 | | | | |
| 35 | 22.35 | 20.64 | 18.03 | 14.01 | 10.17 | 6.00 | | | | |
| 40 | 17.85 | 16.26 | 13.80 | 10.26 | 7.23 | 3.90 | | | | |
| 45 | 17.25 | 14.85 | 11.94 | 8.43 | 5.37 | 2.52 | | | | |
| 50 | 16.50 | 13.38 | 10.98 | 7.89 | 4.47 | 1.07 | | | | |
| 55 | 14.85 | 12.45 | 9.78 | 6.93 | 3.63 | 0.23 | | | | |

METHODS

Calculations: The actuarial calculations were performed by qualified actuaries in accordance with accepted actuarial procedures, based on the current provisions of the retirement system, and on actuarial assumptions that are internally consistent and reasonably based on the actual experience of the System.

Actuarial Cost Method: Liabilities and contributions shown in this report are computed using the Unit Credit Cost Method. The outstanding balance of the unfunded actuarial accrued liability (UAAL) as of January 1, 2015 and any changes to the UAAL arising from plan changes, assumption changes, and actuarial gains/losses are amortized as a level percentage of payroll over a 20-year period.

The full administrative expenses incurred by the County related to the System are payable by the System to the County. The County then reimburses the System for this payment in the annual contribution.

The variance between the amount contributed to the System for a plan year, and the actual contribution requirement for that year is amortized on a level dollar basis over 5 years.

Asset Valuation Method: The actuarial asset value is the market value of assets plus any receivable contributions.

DATA

Census and Assets: The valuation was based on members of the System as of January 1, 2015 and does not take into account future members. All census data was supplied by the System and was subject to reasonable consistency checks. Asset data was supplied by the System. An assumption was made for deferred vested inactive members for which no salary or benefit info was provided. For these members, it is assumed that their benefit amount is equal to the average benefit amount of the deferred vested population for which benefit information is available.



TABLE 18 – Summary Of Benefit And Contribution Provisions

MEMBERSHIP

Any person employed by the County for whom the County is not obligated to collect and withhold FICA taxes. However, such persons shall not include: 1) an employee hired to relieve him from unemployment; 2) an employee of a hospital, home, or institution where he is an inmate; 3) an employees who is a temporary employee to handle fire, storm, snow, earthquake or similar emergencies; 4) an employee paid on a fee basis as self-employed; or 5) an employee who is a member of a collective bargaining unit covered by an agreement which does not provide for his inclusion.

VESTING SERVICE

One year of service is credited on and after January 1, 1992 for each plan year during which the employee is employed at any time. However, the employee shall not receive credit for any plan year in which the County is obligated to collect and withhold FICA taxes. If, during such plan year, FICA taxes are withheld for only a portion of the year, the employee shall receive a pro rata credit for the portion of the year worked when no FICA taxes were withheld.

BENEFIT SERVICE

EARNINGS

Same as vesting service.

Earnable compensation shall include the compensation earned during the period for which no FICA tax was withheld, exclusive of any amounts reimbursed for moving expenses. However, such compensation shall be limited to the Social Security taxable wage base for the plan year.

Average compensation is the average of the total earnings accumulated during the plan years of employment with the County, with the exception of years prior to January 1, 1992.

BENEFITS

Normal Retirement

Eligibility Age 65.

Amount 2% of the member's average compensation multiplied by years of service

(not in excess of 30).

Deferred Vested Benefit

Upon termination of employment, a member is eligible for a deferred vested pension commencing at age 65. Such benefit shall be calculated the same as for normal retirement, considering average compensation and service at termination.



TABLE 19 – Summary Of Membership Data As Of January 1, 2015

Active Participants

| ltem | - | Γotal |
|---------------------------|----|-------|
| Number of Participants | | 394 |
| Average Annual Salaries * | \$ | 9,962 |
| Average Age | | 29.0 |
| Average Service | | 3.5 |

* The salaries shown in the table above represent total annual pay increased by the salary assumption.

Inactive Participants

| ltem | Number | Annual Annuities | Average Annuities |
|-------------------------------------|--------|---------------------|----------------------|
| Participants with Deferred Benefits | 4,783 | \$ 1,377,633 | \$ 288 |
| Participants receiving benefits | 47 | <u>85,058</u> | 1,810 |
| Total | 4,830 | \$ 1,462,691 | \$ 303 |



EXHIBIT I – Active Membership Data

Number And Average Annual Salary* As Of January 1, 2015

| | Years of Service | | | | | | | | | |
|----------|------------------|----------------|----------------|-------|-------|-------|-------|-------|-----|----------------|
| Age | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40+ | Total |
| Under 25 | 188 \$6,242 | 32 \$14,227 | | | | | | | | 220 \$7,404 |
| 25-29 | 31 \$14,898 | 17 - | 9 | | | | | | | 57 \$15,222 |
| 30-34 | 15 - | 6 | 7 - | 3 - | | | | | | 31 \$13,579 |
| 35-39 | 10 | | 4 | | | | | | | 14 - |
| 40-44 | 6 | 1 - | | | 1 - | | | | | 8 - |
| 45-49 | 9 | 2 | | 1 - | | | | | | 12 |
| 50-54 | 13 | 5 - | | 1 - | 1 - | | | | | 20 |
| 55-59 | 13 | | 1 - | | 1 - | | | | | 15 - |
| 60-64 | 6 | 1 - | 3 - | | | | | | | 10 |
| Over 64 | 6 | 1 - | | | | | | | | 7 |
| Total | 297 \$8,095 | 65 \$14,928 | 24 \$15,711 | 5 | 3 - | | | | | 394 \$9,962 |

^{*} Compensation in cells with fewer than 20 records has been suppressed.



EXHIBIT II – 5-Year History Of Membership Data

Active Participants

| Valuation as of January 1 | Number of Active Participants | Percentage Change in Membership | Total Annual Payroll | Percentage Change in Payroll |
|---------------------------------|-------------------------------------|---------------------------------------|-------------------------|------------------------------------|
| 2015 | 394 | 20.86% | \$ 3,925,214 | 12.86% |
| 2014 | 326 | (74.87%) | 3,477,968 | (55.04%) |
| 2013 | 1,297 | (15.23%) | 7,735,644 | (13.46%) |
| 2012 | 1,530 | (0.65%) | 8,939,076 | 0.03% |
| 2011 | 1,540 | 31.29% | 8,936,147 | 29.49% |
| | 1 | | | I |

Retired Participants

| Valuation as of January 1 | Number on roll | Additions | Deletions | Percentage Change in Membership | Annual Annuities | Percentage Change in Annuities |
|---------------------------------|-------------------|-----------|-----------|---------------------------------------|---------------------|--------------------------------------|
| 2015 | 47 | 8 | - | 20.51% | \$ 85,058 | 28.01% |
| 2014 | 39 | 1 | - | 2.63% | 66,446 | 8.37% |
| 2013 | 38 | 10 | - | 35.71% | 61,316 | 65.45% |
| 2012 | 28 | 26 | - | 1300.00% | 37,061 | 863.62% |
| 2011 | 2 | - | • | 0.00% | 3,846 | 0.00% |



EXHIBIT III – Detailed Tabulations Of The Data



TABLE III-A

The Number And Annual Salaries Of Members In Active Service Distributed By Age As Of January 1, 2015

(Compensation in cells with fewer than 20 records has been suppressed)

| | | Men | | Women |
|-----|--------|--------------|--------|--------------|
| Age | Number | Compensation | Number | Compensation |
| 16 | 1 | | | |
| 17 | 15 | | 12 | |
| 18 | 14 | | 13 | |
| 19 | 14 | | 19 | |
| 20 | 18 | | 12 | |
| 21 | 11 | | 15 | |
| 22 | 13 | | 11 | |
| 23 | 14 | | 7 | |
| 24 | 22 | 272,589 | 9 | |
| 25 | 7 | | 2 | |
| 26 | 7 | | 5 | |
| 27 | 7 | | 4 | |
| 28 | 7 | | 5 | |
| 29 | 8 | | 5 | |
| 30 | 3 | | 3 | |
| 31 | 2 | | 2 | |
| 32 | 5 | | 4 | |
| 33 | 2 | | 5 | |
| 34 | 4 | | 1 | |
| 35 | 3 | | 2 | |
| 36 | | | 3 | |
| 37 | 1 | | | |
| 38 | 1 | | 1 | |
| 39 | 3 | | | |
| 40 | 2 | | 1 | |
| 41 | | | 1 | |
| 42 | 1 | | | |
| 43 | 2 | | | |
| 44 | | | 1 | |
| 45 | 1 | | 1 | |
| 46 | 2 | | 1 | |
| 47 | 1 | | | |
| 48 | 2 | | | |
| 49 | 2 | | 2 | |
| 50 | | | 1 | |
| 51 | 4 | | 1 | |



TABLE III-A

The Number And Annual Salaries Of Members In Active Service Distributed By Age As Of January 1, 2015

(Compensation in cells with fewer than 20 records has been suppressed)

| | | Men | | Women |
|-------|--------|--------------|--------|--------------|
| Age | Number | Compensation | Number | Compensation |
| 52 | 3 | | 1 | |
| 53 | 3 | | 1 | |
| 54 | 5 | | 1 | |
| 55 | 2 | | 3 | |
| 56 | 2 | | | |
| 57 | 1 | | | |
| 58 | 1 | | 2 | |
| 59 | 4 | | | |
| 60 | 1 | | 1 | |
| 61 | 2 | | | |
| 62 | 1 | | 1 | |
| 63 | 2 | | | |
| 64 | 2 | | | |
| 65 | 2 | | | |
| 71 | 1 | | | |
| 72 | | | 1 | |
| 74 | 1 | | 1 | |
| 79 | | | 1 | |
| Total | 232 | \$ 2,400,521 | 162 | \$ 1,524,693 |



TABLE III-B

The Number And Annual Salaries
Of Members In Active Service Distributed By
Years Of Credited Service As Of January 1, 2015

(Compensation in cells with fewer than 20 records has been suppressed)

| Years of | Men | | | Women | | |
|----------|--------|--------------|-----------|--------|--------------|-----------|
| Service | Number | Compensation | | Number | Compensation | |
| 0 | 8 | | | 2 | | |
| 1 | 105 | \$ | 714,620 | 67 | \$ | 340,162 |
| 2 | 27 | | 252,470 | 38 | | 404,351 |
| 3 | 22 | | 286,252 | 12 | | |
| 4 | 6 | | | 10 | | |
| 5 | 10 | | | 4 | | |
| 6 | 9 | | | 4 | | |
| 7 | 8 | | | 3 | | |
| 8 | 11 | | | 7 | | |
| 9 | 5 | | | 4 | | |
| 10 | 7 | | | 1 | | |
| 11 | 5 | | | 1 | | |
| 12 | 1 | | | 3 | | |
| 13 | 3 | | | | | |
| 14 | 1 | | | 2 | | |
| 15 | | | | | | |
| 16 | 2 | | | 1 | | |
| 17 | 1 | | | | | |
| 18 | 1 | | | | | |
| 19 | | | | | | |
| 20 | | | | 1 | | |
| 21 | | | | 1 | | |
| 22 | | | | | | |
| 23 | | | | 1 | | |
| Total | 232 | \$ | 2,400,521 | 162 | \$ | 1,524,693 |



TABLE III-C

The Number And Annual Benefits Payable To Participants With Deferred Benefits
As Of January 1, 2015

| | | Men | Women | | | |
|----------|----------|------------------|----------|----------------|--|--|
| Age | Number | Annuity | Number | Annuity | | |
| | | | | | | |
| 16 | 1 | \$ 16 | | | | |
| 17 | 38 | 2,038 | 36 | \$ 1,389 | | |
| 18 | 78 | 3,586 | 48 | 1,996 | | |
| 19 | 110 | 8,179 | 85 | 5,362 | | |
| 20 | 132 | 13,585 | 118 | 13,386 | | |
| 21 | 133 | 19,227 | 119 | 16,072 | | |
| 22 | 178 | 25,908 | 159 | 22,017 | | |
| 23 | 240 | 37,799 | 196 | 28,443 | | |
| 24 | 237 | 40,705 | 188 | 28,877 | | |
| 25 | 203 | 34,840 | 168 | 26,555 | | |
| 26 | 188 | 38,245 | 155 | 27,608 | | |
| 27 | 132 | 29,101 | 118 | 21,794 | | |
| 28 | 131 | 43,563 | 75 | 20,557 | | |
| 29 | 90 | 36,364 | 68 | 23,242 | | |
| 30 | 65 | 25,164 | 51 | 29,087 | | |
| 31 | 51 | 28,260 | 51 | 36,129 | | |
| 32 | 51 | 21,117 | 38 | 17,122 | | |
| 33 | 43 | 29,258 | 27 | 10,880 | | |
| 34 | 35 | 28,965 | 35 | 25,749 | | |
| 35 | 32 | 25,051 | 23 | 18,592 | | |
| 36 | 28 | 15,097 | 20 | 8,610 | | |
| 37 | 21 | 17,951 | 14 | 6,983 | | |
| 38 | 17 | 14,007 | 20 | 10,213 | | |
| 39 | 23 | 13,918 | 14 | 10,764 | | |
| 40 | 26 | 15,947 | 9 | 3,323 | | |
| 41 | 20 | 20,207 | 16 | 6,457 | | |
| 42 | 14 | 9,460 | 10 | 5,766 | | |
| 43 | 10 | 2,877 | 5 | 3,037 | | |
| 44 | 19 | 13,897 | 10 | 4,507 | | |
| 45 | 18 | 6,826 | 7 | 5,148 | | |
| 46 | 26 | 7,828 | 7 | 4,893 | | |
| 47 | 19 | 11,251 | 10 | 3,057 | | |
| 48 | 14 | 6,888 | 10 | 3,560 | | |
| 49 | 17 | 10,746 | 7 | 4,969 | | |
| 50 | 17 | 8,422 | 7 | 13,212 | | |
| 51 | 16 | 9,742 | 11 | 4,266 | | |
| 52 | 18 | 22,262 | 10 | 7,968 | | |
| 53 | 17 | 14,013 | 11 | 6,076 | | |
| 54 | 15 | 4,578 | 10 | 4,452 | | |
| 55 56 | 20 22 | 10,712 17,013 | 10 11 | 7,713 5,245 | | |



The Number And Annual Benefits Payable To Participants With Deferred Benefits As Of January 1, 2015

TABLE III-C

| | Men | | | Women | | | |
|-------|--------|----|---------|--------|----|---------|--|
| Age | Number | | Annuity | Number | | Annuity | |
| | | | | | | | |
| | | • | | _ | | | |
| 57 | 12 | \$ | 6,261 | 7 | \$ | 1,365 | |
| 58 | 18 | | 9,141 | 8 | | 10,399 | |
| 59 | 15 | | 12,342 | 9 | | 4,316 | |
| 60 | 19 | | 11,029 | 10 | | 5,861 | |
| 61 | 15 | | 11,000 | 7 | | 3,798 | |
| 62 | 14 | | 10,404 | 7 | | 3,047 | |
| 63 | 17 | | 14,722 | 8 | | 3,140 | |
| 64 | 7 | | 2,832 | 6 | | 2,830 | |
| 65 | 15 | | 4,576 | 1 | | 176 | |
| 66 | 6 | | 1,343 | | | | |
| 67 | 6 | | 4,286 | 2 | | 1,499 | |
| 68 | 2 | | 490 | | | | |
| 69 | | | | | | | |
| 70 | 1 | | 76 | | | | |
| 71 | 2 | | 122 | | | | |
| 72 | 3 | | 1,324 | | | | |
| 73 | 3 | | 333 | | | | |
| 74 | 3 | | 403 | 1 | | 133 | |
| 75 | 2 | | 207 | | | | |
| 76 | | | | | | | |
| 77 | | | | | | | |
| 78 | | | • | | | | |
| 79 | 1 | | 1 | | | | |
| 80 | _ | | 50 | | | | |
| 81 | 1 | | 52 | | | | |
| 82 | | | | | | | |
| 83 | | | _ | _ | | | |
| 84 | 1 | | 1 | 1 | | 4 | |
| 85 | | | 46.1 | | | | |
| 86 | 1 | _ | 431 | | _ | = | |
| Total | 2,729 | \$ | 835,989 | 2,054 | \$ | 541,644 | |



TABLE III-D

The Number And Annual Benefits Payable To Participants Receiving Benefits As Of January 1, 2015

| | Men | | | Women | | | |
|-------|--------|----|---------|--------|----|---------|--|
| Age | Number | | Annuity | Number | | Annuity | |
| 65 | 1 | \$ | 1,028 | | | | |
| 66 | 5 | | 9,003 | 2 | \$ | 7,398 | |
| 67 | 5 | | 10,979 | 3 | | 7,744 | |
| 68 | 7 | | 14,151 | 3 | | 4,821 | |
| 69 | 3 | | 4,221 | 2 | | 3,273 | |
| 70 | 4 | | 6,438 | 2 | | 3,468 | |
| 71 | 2 | | 2,046 | 1 | | 690 | |
| 72 | | | | 1 | | 1,405 | |
| 73 | 2 | | 3,495 | 1 | | 967 | |
| 74 | 1 | | 1,585 | | | | |
| 75 | 1 | | 975 | | | | |
| 76 | | | | | | | |
| 77 | | | | | | | |
| 78 | | | | | | | |
| 79 | | | | | | | |
| 80 | 1 | | 1,371 | | | | |
| Total | 32 | \$ | 55,292 | 15 | \$ | 29,766 | |



EXHIBIT IV – Glossary

Accrued Liability

The difference between (a) the present value of future plan benefits, and (b) the present value of future normal cost. It is the portion of the present value of future plan benefits attributable to service accrued as of the valuation date. Sometimes referred to as "actuarial accrued liability."

Accrued Service

The service credited under the plan which was rendered before the date of the actuarial valuation.

Actual Funding Contribution

The Actual Funding Contribution for a plan year is calculated using census and asset information as of the first day of the plan year, and includes Normal Cost, with interest to the end of the plan year, and a net amortization payment.

Actuarial Assumptions

Estimates of future plan experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.

Actuarial Cost Method

A mathematical budgeting procedure for allocating the dollar amount of the "present value of future plan benefits" between the present value of future normal cost and the accrued liability. Sometimes referred to as the "actuarial funding method."

Actuarial Equivalent

A series of payments is called an actuarial equivalent of another series of payments if the two series have the same actuarial present value.

Actuarial Value of Assets

The value of current plan assets recognized for valuation purposes. Based on market value.

Amortization

Paying off an interest-bearing liability by means of periodic payments of interest and principal, as opposed to paying it off with a lump sum payment.



EXHIBIT IV – Glossary (cont'd)

Annual Required Contribution The Annual

The Annual Required Contribution, or ARC, is the amount determined in accordance with Governmental Accounting

Standards Board Statements Nos. 25 and 27.

Budget Contribution The Budget Contribution for a year is based on census and asset

information as of the first day of the PRIOR plan year, rolled forward to the next plan year based on all actuarial assumptions being met. For example, the Budget Contribution for 2015 is based on census and asset information as of January 1, 2014,

rolled forward to January 1, 2015.

Contribution Variance The difference between the Actual Contribution and the Budget

Contribution for a plan year is referred to as the Contribution Variance. A Contribution Variance resulting from an overpayment is amortized over 5 years as a level dollar credit. A Contribution Variance resulting from an underpayment is amortized over 5

years as a level dollar charge.

Experience Gain (Loss)A measure of the difference between actual experience and that

expected based upon a set of actuarial assumptions during the period between two actuarial valuation dates, in accordance with

the actuarial cost method being used.

Normal Cost The annual cost assumed, under the actuarial funding method, for

current and subsequent plan years. Sometimes referred to as

"current service cost."

Present Value The amount of funds presently required to provide a payment or

series of payments in the future. The present value is determined by discounting the future payments at a predetermined rate of

interest, taking into account the probability of payment.

Unfunded Accrued Liability The difference between the actuarial accrued liability and valuation

assets.